

REMARKS

Reconsideration of this application is respectfully requested. The Examiner is of the opinion that Claims 1, 2, 4, 6 and 8 were rejected as allegedly anticipated by Cunningham. Applicants respectfully traverse.

Claim 1 recites that at least one shaft is provided on the metallic, heat-conducting support element of the heating unit into which the heating element is inserted. Claim 2 also recites that the heating element is electrically insulated with respect to the support element by an insulator.

As it can be clearly seen from Figure 3 of Cunningham there is an insulator 20. In column 4, last paragraph it is mentioned that the apparatus 10' includes an insulation means 20' which is installed in support means 22'. Column 3, last paragraph discloses that the heating means is supported in insulation means 20'. These insulation means in turn are installed in a support means. It is further disclosed that the insulation means includes a cake of insulating material such as, for example, a micro porous foamed silica material. For a person skilled in the art it is clear that the insulation means 20 is a thermal insulation means and not an electrically insulation means as it is recited in claim 1.

Further, the Examiner is of the opinion, that the heating element is inserted into a shaft. In column 4, third paragraph in lines 37 to 38, a metal sheath heating element 14 is disclosed. Further in column 4, line 47 to line 49 it is disclosed that a heating element 46 exhibits less thermal inertia than these conventional heating elements or even heating element 14. A shaft as it is mentioned in claim 1 of the application is not taught or suggested by Cunningham. Item 14 of Cunningham denotes a heating element and in particular a heating element which could be a metal sheath heating element. The metal sheath of Cunningham is a part of the heating element and the heating element is not inserted into a shaft.

As it is mentioned in present claim 1 of the application and as it can be seen in figure 5 to 8, a heat conducting support element is provided and is in close contact to the glass ceramic plate. The heating element according to the invention should be electrically insulated with respect to the support element by an insulator. As it is mentioned in column 3, third paragraph a disk 18 is provided which is preferable of translucent aluminium nitride material. The disk 18 is proximately positioned to both heating element 14 and the glass/ceramic upper section S of range R. Cunningham does not disclose or suggest providing electrically insulating means with respect to the support element. Comparing figures 5 to 8 of the invention with Figure 3 of Cunningham clearly shows that there is no electrical insulator between the disk 18 and metal sheath heating element.

Since not all the features of the claim 1 of the invention are identically disclosed in Cunningham claim 1 is patentable over Cunningham.

All claims depend from Claim 1, and, since more of the secondary references overcome the deficiencies of Cunningham, all claims are believed to be allowable. Furthermore, this spring element D in figure 2 does not press the heating elements to the underside of the zone but presses a heating element in the thermal insulation elements to the underside of the zone therefore claim 2 is not taught or suggested by Cunningham. The surface region of the heating element should be smaller than that of the support element and that should be obvious from Figure 4. The supporting element (18, 18') is not shown in Figure 4 and therefore in Figure 4 it cannot be obvious that the surface region of the heating element should be smaller than that of the support element. As it is clearly shown in figure 3 the surface region of the heating element is definitely as large as that of the support element.

With respect to claim 3, Cunningham does not disclose all of the recited subject matter except adhesively bonding the heating unit/element. Therefore, it can not be obvious to one of ordinary skill in the art at the time the invention was made to have included the adhesive bonding of Gratz et. al. in the cooktop of Cunningham because Cunningham does not disclose all of the features of claim 1.

In sum, Cunningham does not provide a shaft into which the heating element is inserted. The metal sheath heat element 14 is not the shaft but the heating element itself. A heating element according to the invention could be a metal sheath element which is then inserted into the shaft according to the invention.

The heating element of Cunningham is not electrically insulated with respect to the support element by an insulator because the support elements according to Cunningham is the plate 18 and plate 18 is above the heating elements, and the insulation is not situated between the heating elements and the plate 18 but on the other side of the heating elements with respect to the plate 18.

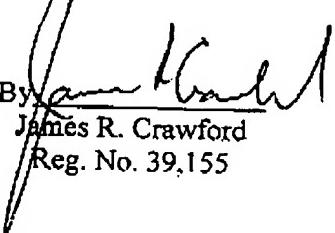
Further, the insulation according to Cunningham is a thermal insulation and not electrical insulation.

In view of the foregoing, allowance is respectfully requested.

Any fees due for entry of this amendment may be charged to deposit account no: 50-0624.

Respectfully submitted

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